At page 13, replace the second paragraph with the following:

The preferred monoclonal antibodies of the present invention are those designated SR-1, deposited as BA7.3C.9 with the American Type Culture Collection, 10801 University Boulevard, Manassas, VA 20110-2209, USA on April 4 1991, and given the Accession Number HB10716.

In the claims:

Please cancel Claim 21 without prejudice.

Please add the following new claims:

26. (new) A method of modifying sensitivity of cells containing a stem cell factor receptor to a cell cycle-specific chemotherapeutic agent comprising administering a monoclonal antibody or fragment thereof, which binds to an epitope on a receptor recognized by human stem cell factor, in an amount sufficient to inhibit the binding of stem cell factor to the receptor or to decrease the growth or development of the receptor-containing cells, thereby modifying the sensitivity of the cells to a cell cycle-specific chemotherapeutic agent.

27. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof binds to an epitope being recognized by the monoclonal antibody produced by the hybridoma cell line ATCC No. HB 10716.

28. (new) The method of Claim 26 wherein the monoclonal antibody is produced from the hybridoma cell line ATCC No. HB 10716.

29. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor by at least 50%.

30. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor by at least 75%.

31. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor by at least 90%.

32. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof inhibits binding of human stem cell factor to the receptor essentially entirely.

33. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof decreases the growth rate of receptor-containing cells by at least one half.

34. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof decreases the growth rate of receptor-containing cells by at least one tenth.

35. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof decreases the growth rate of receptor-containing cells by at least one hundredth.

36. (new) The method of Claim 26 wherein the receptor-containing cells are early pluripotent hematopoietic progenitor cells, leukemia cells, solid tumor cells and bone marrow cells.

37. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a murine variable region and a human constant region.

C4

38. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a murine hypervariable region and a human constant and framework region

39. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a human monoclonal antibody.

40. (new) The method of Claim 26 wherein the monoclonal antibody or fragment thereof comprises a pharmaceutical composition containing the antibody.

41. (new) The method of Claim 40 wherein the composition comprises a buffer, diluent and additive.

42. (new) The method of Claim 40 wherein the composition comprises a phosphate buffer.

43. (new) The method of Claim 40 wherein the composition comprises a sterile isotonic aqueous solution.

44. (new) The method of Claim 40 wherein the composition comprises Tween.